

REMARKS

Claims 21-37 and 39-52 are pending, and claims 31-37 and 39-52 are under examination, claims 21-36 having been withdrawn from consideration.

The title of the inventive has been objected to as not descriptive. The Examiner's suggested title is accepted by Applicant, as shown in the amendments.

The Examiner has objected to the abstract. The abstract has been amended to describe the claims invention of making composite doctor blades.

Claims 31-33, 35-37, 39-40 and 48-51 have been rejected under 35 U.S.C. §102(b) as being anticipated by JP 05-132891. Dependent claims 41, 44-46 and 52 have been rejected under 35 U.S.C. §103(a) as being unpatentable over JP 05-132891 in view of Rata et al. (US Patent No. 6,416,843 B1). Dependent claim 34 has been rejected under 35 U.S.C. §103(a) as being unpatentable over JP 05-132891 in view of Frankel et al. (US Patent No. 4,978,999). Dependent claims 42-43 and 52 have been rejected under 35 U.S.C. §103(a) as being unpatentable over JP 05-132891 in view of Rata et al. ('843) and Rokman et al. (US 2002/0092634 A1).

The Examiner has provided an abstract of JP 05-132891 with the Office Action in support of the rejections. Applicant notes, however, that the Examiner was previously provided a full English translation of JP 05-132891 with the filing of the current divisional application (cite no. AJ on the submitted IDS). Applicant respectfully submits that the full translation of JP 05-132891, rather than the abstract, must be used for patentability determinations. Applicant encloses another copy of the translation.

Independent claim 31 has been amended to recite that the unidirectional fibers are aligned parallel to the long axis of the doctor blade. Applicant has defined "unidirectional fibers" as "abrasive fibers aligned in a direction parallel to the long axis of the doctor blade" (page 3, lines 14-15 of Applicant's specification).

35 U.S.C. 102(b) Rejection

JP 05-132891 does not teach or suggest the use of unidirectional fibers aligned in a direction parallel to the long axis of the doctor blade. JP 05-132891 does not disclose or discuss

the direction in which the fibers are aligned. There is no recognition in JP 05-132891 that there would be any benefit to aligning the fibers parallel to the long axis.

JP 05-132891 does disclose the use of a glass fiber fabric. However, there is no disclosure or teaching by JP 05-132891 that the fabric has proportionally more fibers in one direction than in another thereby being considered a "unidirectional fabric". The unidirectional fibers of the invention may be provided in the form of a fabric but the fabric must exhibit certain characteristics to be considered a "unidirectional fabric". Applicant describes suitable unidirectional fabrics as follows (page 7, lines 5-18 of the specification):

Suitable fabrics including unidirectional fibers are generally referred to in the art as "unidirectional fabrics" even though such fabrics may have woven structures such that a certain proportion of the fibers are aligned in a different direction. As used herein, the term "secondary fibers" is intended to refer to the fibers included in the unidirectional fabric but are not aligned in a direction substantially parallel to the long axis of the doctor blade. Secondary fibers are generally used in unidirectional fabric to provide a rudimentary framework for the unidirectional fibers so that the fabric does not fall apart during processing, e.g., during impregnation with resin and during lamination. . . Suitable unidirectional fabrics contain at least 60% by weight unidirectional fibers.

JP 05-132891 does not disclose or suggest a "unidirectional fabric" as described by Applicant. There is no indication in JP 05-132891 that the fabric used by JP 05-132891 includes at least 60% by weight of fibers aligned in one specific direction.

Because JP 05-132891 does not use unidirectional fibers in a unidirectional fabric in its doctor blade, JP 05-132891 does not anticipate Applicant's claims. Accordingly, it is respectfully submitted that claims 31-33, 35-37, 39-40 and 48-51 are not properly rejectable over JP 05-132891.

35 U.S.C. 103(a) Rejections

As discussed above, Applicant disagrees that JP 05-132891 discloses unidirectional fibers as defined in the current invention. In fact, JP 05-132891 does not teach or discuss any particular orientation for its fiberglass fibers in relation to the structure of the doctor blade nor does JP 05-132891 teach or discuss a unidirectional fabric as described by Applicant.

1. Rata et al.

Rata et al. does not teach or suggest the use of unidirectional fabric as claimed. Moreover, Rata et al. does not teach or suggest a fabric in which a high proportion of the fibers, based on fabric weight, are unidirectional. Rata et al. does not say anything about the percentage by fabric weight of unidirectional abrasive fibers, because Rata et al. does not include such fibers. Rata et al. discloses a composite blade in which the content of nonabrasive carbon is high and the "matrix material" (thermosetting resin) is low (column 2, lines 52-54 of Rata et al.).

There is no suggestion in either reference that the composite material should comprise a unidirectional fabric with at least 60% of the fabric weight being unidirectional fibers. Moreover, there is no recognition or suggestion in either reference that the addition of nonabrasive fibers in a unidirectional abrasive fabric is advantageous. The only suggestion for this modification is found in *Applicant's own specification*. It is well established that Applicant's specification cannot be used as a template for hindsight reconstruction of the claimed invention. Thus, Applicant respectfully submits that this rejection is improper and requests that it be withdrawn.

Claims 41, 44-46 and 52, as amended, are dependent from amended claim 31, which is allowable over the prior art on the basis of the arguments presented above. As a result, the Examiner's comments and objections specific to claims 41, 44-46 and 52 are rendered moot and therefore have not been addressed. However, Applicant reserves the right to do so.

2. Frankel et al.

Claim 34 is dependent from amended claim 31, which is allowable over the prior art on the basis of the arguments presented above. As a result, the Examiner's comments and objections specific to claim 34 are rendered moot and therefore have not been addressed. However, Applicant reserves the right to do so.

3. Rata et al. and Rokman et al.

Rokman discloses the manufacture of non-woven glass fiber mats not "fabric" as stated by the Examiner. The Examiner is apparently equating "fabric" with "mat". Practitioners skilled in the art know that the fibers in a glass fiber mats are randomly oriented in a loose structure. A practitioner skilled in the art would not equate glass fiber "mats" with glass fiber "fabrics". As

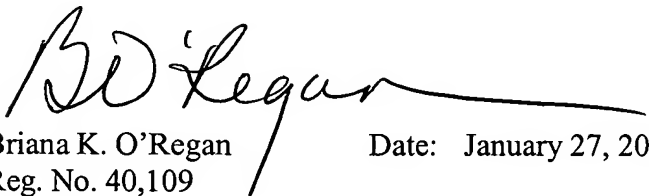
discussed above, the unidirectional fabric of the current invention has a woven structure containing unidirectional fibers and secondary fibers. A non-woven mat does not include unidirectional fibers and secondary fibers as described by the Applicant.

There is no suggestion in any of the references that the composite material should comprise a unidirectional fabric with at least 60% of the fabric weight being unidirectional fibers. Moreover, there is no recognition or suggestion in any of the references that the use of unidirectional fibers having larger diameters than the secondary fibers in the fabric is advantageous.

Claims 42-43 and 47, as amended, are dependent from amended claim 31, which is allowable over the prior art on the basis of the arguments presented above. As a result, the Examiner's comments and objections specific to claims 42-43 and 47 are rendered moot and therefore have not been addressed. However, Applicant reserves the right to do so.

No additional fees are believed to be due in connection with the filing of this Response. However, please charge any necessary fees in connection with this Response to Deposit Account No. 23-0470, referencing the Attorney Docket number shown above.

Respectfully Submitted,


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